

Appl. No.: 10/620,469

• Amendment Dated: 1/24/2005

• Reply to OA of 8/24/2004

AMENDMENT TO THE CLAIMS

The listing of the claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS

Please cancel claims 3 and 19 without prejudice.

Please amend the claims as follows:

- 1 1. (Currently Amended) A memory driver comprising:
2 selection logic, to receive an address for promotion to a memory, and to provide an
3 indication of whether to promote the received address or a modified version thereof to the
4 memory;
5 a multiplexing element, responsive to the selection logic, to selectively promote either the
6 received address or the modified version thereof to the memory based, at least in part, on the
7 received indication; and
8 a pulse generator element, to receive a clock signal and produce at least two reference
9 signals, overlapping yet offset from one another in time; and
10 one or more driver elements, coupled to the multiplexing element and responsive to the
11 pulse generator element, to receive content promoted from the multiplexing element during a
12 precharge phase the reference signals, and to assert the content received from the multiplexer to
13 the memory during a discharge phase of the reference signals.

- 1 2. (Previously Amended) A memory driver according to claim 1, further comprising:

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2 a latch element including the pulse generator and driver element(s), coupled to the
3 multiplexing element, to assert address content received from the multiplexing element to the
4 memory.

1 3. (Cancelled) A memory driver according to claim 2, the latch element comprising:
2 a pulse generator element, to receive a clock signal and produce at least two reference
3 signals, overlapping yet offset from one another in time; and
4 one or more driver elements, coupled to the multiplexing element and responsive to the pulse
5 generator element, to receive content promoted from the multiplexing element during a
6 precharge phase the reference signals, and to assert the content received from the multiplexer to
7 the memory during a discharge phase of the reference signals.

1 4. (Previously Amended) A memory driver according to claim 2, the pulse generator element
2 comprising:
3 two parallel processing paths, one of which including a delay element, wherein the
4 parallel processing paths receive the clocking signal, or a delayed version thereof, at a gate of a
5 transistor to control the precharge and discharge cycles of the coupled latch.

1 5. (Previously Amended) A memory driver according to claim 2, the driver element
2 comprising:
3 a differential domino transistor architecture, coupled to the multiplexer output and
4 responsive to the pulse generator, to generate a differential memory output of an element of the
5 promoted address content and its complement.

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1 6. (Original) A memory driver according to claim 1, the selection logic comprising:

2 detection logic, to determine whether at least a subset of the received address is
3 composed of zeroes.

1 7. (Original) A memory driver according to claim 6, wherein the detection logic is a one-detect
2 circuit.

1 8. (Original) A memory driver according to claim 1, the selection logic comprising:

2 detection logic, to determine whether at least a subset of the received address is
3 composed of a predefined value.

1 9. (Original) A memory driver according to claim 1, the multiplexer element comprising:

2 a first and second set of stacked transistors, wherein individual transistors of the first set
3 are coupled to receive at their gate one of an indication from the selection logic, an address, and
4 a process identification (PID) value, while individual transistors of the second set are coupled to
5 receive at their gate a complement of the indication, the address and the PID value.

1 10. (Original) A memory driver according to claim 9, wherein depending on the indication
2 received from the selection logic, the multiplexer element promotes either the received address
3 and complement thereof, or the process identifier (PID) and complement thereof to the latch
4 element.

1 11. (Previously Amended) A memory driver according to claim 2, the latch comprising:

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2 a first and second differential set of transistors, coupled to the multiplexing element, to
3 assert either the received address and complement thereof, or the PID and complement thereof to
4 a memory device.

1 12. (Original) A memory driver according to claim 11, wherein the latch is coupled to the
2 multiplexing element through a transistor responsive to a pulse generator, such that the latch is
3 isolated from the multiplexing element during a precharge phase of the pulse generator, and
4 asserts content at the output of the multiplexing element during a discharge phase of the pulse
5 generator.

1 13. (Previously Withdrawn) A system comprising:
2 a content addressable memory (CAM); and
3 a memory driver, coupled with the CAM, to receive an address for assertion to the CAM,
4 and to selectively modify the at least a subset of the received address to reflect a process
5 identifier based, at least in part, on at least a subset of content of the received address.

1 14. (Previously Withdrawn) A system according to claim 13, the memory driver comprising:
2 selection logic, to receive the address for promotion to a CAM cell, and to provide an
3 indication of whether to promote the received address or a modified version thereof to the CAM
4 cell; and
5 a multiplexing element, responsive to the selection logic, to selectively promote either the
6 received address or the modified version thereof to the CAM cell based, at least in part, on the
7 received indication.

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1 15. (Previously Withdrawn) A system according to claim 14, the memory driver further
2 comprising:

1 a latch element, coupled to the multiplexing element, to assert address content received
2 from the multiplexing element to the memory cell.

1 16. (Original) A method implemented within a memory driver comprising:
2 receiving at least a subset of an address for promotion to a memory; and
3 selectively replacing at least the subset of the received address with a process identifier
4 (PID) if it is determined that the subset of the received addresses is composed of zeroes.

1 17. (Original) A method implemented within a memory driver according to claim 16, further
2 comprising:
3 analyzing the received subset of the address to determine whether the subset of composed
4 of zeroes and, if so, to provide an indication to a multiplexing element to replace the received
5 subset of the address with the process identifier.

1 18. (Original) A method implemented within a memory driver according to claim ~~16~~ 17, further
2 comprising:
3 asserting either the received address, or a modified version thereof based, at least in part,
4 on whether the received subset of the address is composed of zeroes.

1 19. (Cancelled) A storage medium comprising content, which when executed by an
2 accessing machine, causes the machine to implement a method according to claim 16.

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- 1 20. (Original) A storage medium comprising content which, when executed by an accessing
- 2 machine, causes the machine to generate a memory driver according to claim 1.